



Illinois Department of Transportation

Memorandum

To: DIRECTORS, DEPUTY DIRECTORS, AND BUREAU CHIEFS
From: Dianna L. Taylor
Bureau Chief of Personnel Management
Subject: Technical Vacancy
Date: August 24, 2016

Attached are the Position Summary Sheet and Position Description for the vacant technical position listed below. Please post this vacancy announcement August 25, 2016 in the designated areas.

The deadline for applicants to submit their names for consideration is **4:30 p.m.** on **Thursday, September 8, 2016**. Applicants will not be accepted after that time and date.

NOTE: Please be advised that if a high volume of applications are received, the applications may be screened to establish a smaller pool of applicants for interview. The screening will be based on the information contained in the application.

All applicants will receive a position description for the position they are applying for. If you have any questions, please contact Jennifer Sunderland or Denise Hamilton at 217/782-5594.

ET IV

Data Systems Specialist
Region 1/District 1/Programming
Highways Project Implementation
Schaumburg

Attachments
40949

Technical Applications (PM 1080) **must be received** by the Bureau of Personnel Management, Room 113, 2300 South Dirksen Parkway, Springfield, IL 62764 (Fax# 217/557-3134) or emailed to DOT.CO.BPM.EmploymentApplications@Illinois.gov by **Thursday, September 8, 2016, 4:30 p.m.** Please include address, daytime phone and position for which applying if not already listed on application. Applicants will be notified in writing to schedule interviews.

NOTE: Please be advised that if a high volume of applications are received, the applications may be screened to establish a smaller pool of applicants for interview. The screening will be based on the information contained in the application.



Illinois Department of Transportation

An Equal Opportunity Employer

Position Summary Sheet

Classification: Engineering Technician IV

Salary Range: \$4,695 - \$8,775

Position Title: Data Systems Specialist

Union Position: ☒ Yes ☐ No

Position Number: PW014-23-51-800-23-01

IPR#: 40949

Office/Central Bureau/District/Work Address:

Office of Highways Project Implementation/Region One/District One/Bureau of Programming/201 W. Center Court, Schaumburg, IL

Description Of Duties:

This position is primarily accountable for performing or directing activities necessary to develop and produce accurate, complete and useful data reports and graphic or Geographic Information System (GIS) products to satisfy user requests for information available from the Illinois Highway Information System and other specialized or unique transportation-related data bases; maintaining the Township Maintenance Road Mileage File / Data Base system; developing and maintaining data quality monitoring, evaluation and error resolution systems; and troubleshooting data collection, processing or retrieval problems as directed by the Transportation Data Bank Manager. These data bases and data systems are used to develop, evaluate, prioritize and justify annual and multi-year improvement program projects; allot Motor Fuel Tax (MFT) funds; obtain allocations of federal bridge replacement and rehabilitation funds; and satisfy the highway information needs of transportation planning authorities and the general public.

Special Qualifications:

Required:

- A valid driver's license
- Frequent districtwide travel and occasional travel outside of District One

Desired:

- An Associate Degree or the knowledge, skill and mental development equivalent to the completion of two years of college or two or more years work experience in a technical position
- Experience in operating or utilizing computerized data bases or Geographic Information Systems involving a large volume of complex information
- Experience in developing data collection techniques and processing procedures to satisfy unique or special information requests; and ability to design or employ data quality control methods and techniques
- Experience in directing and coordinating the work of subordinates and consulting contractor personnel
- Strong oral and written communication skills

Shift/Remarks:

8:00 am - 4:15 pm / Monday - Friday (45 minute lunch)

**ILLINOIS DEPARTMENT OF TRANSPORTATION
POSITION DESCRIPTION**

DATE:	1/12/2016	POSITION:	Data Systems Specialist
APPROVED BY:	<u>Peter E. Harmet</u>	OFFICE/DIVISION:	Highways/District One/Schaumburg Bureau of Programming
CODE:	PW014-23-51-800-23-01	REPORTS TO:	Transportation Data Bank Manager

Position Purpose

This position is primarily accountable for performing or directing activities necessary to develop and produce accurate, complete and useful data reports and graphic or Geographic Information System (GIS) products to satisfy user requests for information available from the Illinois Highway Information System and other specialized or unique transportation-related data bases. The incumbent will also be responsible for: maintaining the Township Maintenance Road Mileage File / Data Base system; for developing and maintaining data quality monitoring, evaluation and error resolution systems; and troubleshooting data collection, processing or retrieval problems as directed by the Transportation Data Bank Manager. These data bases and data systems needs are complex and are used to: develop, evaluate, prioritize and justify annual and multi-year improvement program projects; to allot Motor Fuel Tax (MFT) funds; to obtain allocations of federal bridge replacement and rehabilitation funds; and to satisfy the highway information needs of transportation planning authorities and the general public.

Dimensions

Direct Subordinates	1 to 3
Scope of Unit Work Activity (Annual Average)	
Special Data Collection and Report Projects	20 to 40
Township Maintenance Files Maintained	83
Township Maintenance Road Mileage (Miles)	3,600 to 3,800
Township Road Mileage Update Requests Processed	300 to 700
Information System Data Quality and Error Resolution Projects Conducted	10 to 20
Specific Inquiries for Specific Data Item Verification Conducted	50 to 125
Routine Data Inquiries or Reports Requested / Produced	150 to 300
Graphic and Geographic Information System Reports / Data Display Products Produced	10 to 25
Condition Rating Survey (CRS) Road Segment Videos Evaluated and Distress Data Entered	150 to 300

Nature and Scope

This position, along with two (2) Highway Information Systems Specialists, the Traffic Information Systems Specialist, and the Graphic and Geographic Information Systems Manager, report directly to the Transportation Data Bank Manager. Reporting to this position are one to three (1 to 3) Data Systems Technicians.

This is a unique technical and supervisory position in that producing accurate, complete data reports and graphic or geographic displays in response to requests can be a complex and involved process. The scope of the information requested can be as wide as the large data bases maintained by the Department and others maintained elsewhere. In some cases, it may require the customized development of data collection techniques; overseeing their employment, often by consulting contractor personnel; and utilizing existing or creating new data processing programs to produce the required information. As a result, the incumbent must consistently demonstrate creativity and innovation in responding to information requests as well as in fulfilling the data quality monitoring and data system troubleshooting functions of this position. The on-going development of GIS (Geographic Information System) technology and other data systems will demand that the incumbent adapt to and manage changes in data collection, evaluation and reporting methods.

Typical problems encountered in this position include: the wide ranging scope of data requests and the complexity of the data collection and processing programs which must be employed to provide needed information and the fact that the nature of many data items requires a high degree of accuracy and precision in data collection, evaluation and processing activities. The complexity of the data and data processing procedures require the incumbent to provide subordinate staff and consulting contractor personnel with detailed instructions and training as well as close supervision so as to successfully provide data and to implement any innovations or changes in data collection or data processing procedures.

The greatest challenge to the incumbent lies in balancing the need to ensure the performance of the more routine functions while simultaneously conducting specialized data collection, error resolution and data verification activities and adapting to innovations in data collection, storage and retrieval technology.

To ensure that requests for accurate, complete information are satisfied in a timely manner, the incumbent must personally: receive, review, assign, and verify data transactions that will affect the Township Maintenance Mileage Road File; establish, train subordinates and consulting contractor personnel to employ proper data collection, evaluation and reporting techniques; modify Statewide data collection and processing methods to suit unique District One conditions and requirements; organize, coordinate and schedule field and in-house data collection and reporting activities; and continually monitor data collection activities and evaluate reported data for validity, accuracy and completeness.

In addition to the incumbent's routine information request handling and Township Maintenance Mileage Road File management functions, he/she must also personally: receive and coordinate the response to requests for information that cannot be obtained through routine data base inquiries; participate in the design, development and implementation of special data collection and report production efforts whether conducted personally, by subordinate staff, or through consulting contractors; initiate and / or assist in the development of new or improved routine data reports and graphic or Geographic Information System data display products; develop quality control monitoring procedures to systematically identify and resolve data gaps, errors or anomalies; conduct or coordinate troubleshooting of data system problems as assigned; establish and maintain contacts with various sources of data and other transportation-relevant information both within and outside the Department to obtain and share information; develop and conduct orientation or instructional programs or materials; and direct, train, motivate and discipline subordinate staff and consulting contractor personnel so as to maintain satisfactory levels of performance and productivity.

The incumbent accomplishes the position's accountabilities through the following staff: One to Three (1 to 3) Data Systems Technicians who are responsible for: data collection and processing activities required to maintain the Township Maintenance Road Files/Data Base; resolving data gaps, errors and anomalies in a timely manner; producing of routine data reports; and participating in the conduct of special data collection activities.

The incumbent works within established guidelines and procedures respecting the data collection, evaluation, processing and reporting functions. He/she is expected to exercise judgment in organizing, scheduling and conducting his/her own work activities as well as those of subordinate staff. Creativity in satisfying special information requests, in troubleshooting technical problems, and in implementing new methods and technology, will be required.

As a result of the nature of this position, the incumbent must interact with a variety of individuals and organizations both within and outside of the Department. The incumbent must: establish close working relationships on a continuous basis with the supervisors and personnel in all other sub-units within the Data Bank and periodically work effectively with various other District and Central Office personnel to resolve data program problems. He/she must also periodically interact with other Bureau of Programming and District personnel to instruct them in data system capabilities and retrieval techniques and to render technical assistance as needed. Frequent intra-district travel is required to maintain these relationships and to supervise and monitor subordinate performance. Occasional travel to the Central Office or elsewhere out of the District is required to take advantage of technical training and to meet with Central Office personnel regarding data system needs and capabilities.

The performance of this position is measured by the extent to which the data and other specialized information maintained and supplied by the Unit is: collected efficiently; is accurate and complete in content; timely in delivery and satisfies the information needs of the users.

Principal Accountabilities

1. Organizes and coordinates the activities necessary to respond in a timely manner to both routine and complex requests for data and other specialized transportation-related information.
2. Ensures the accuracy and completeness of the Township Maintenance Road Files / Data Base by continuously collecting, verifying and processing updates to the Files and the Illinois Highway Information System (IHIS).
3. Coordinates the design, development and conduct of customized special data collection projects and the production of reports and materials reflecting the results of those activities.
4. Identifies and coordinates the development of new or improved data reports or formats and graphic / geographic data display products.
5. Participates in the development and operation of data quality monitoring programs and procedures to ensure that all data collected and reported is valid, accurate and complete.
6. Conducts or directs troubleshooting of data collection, processing, or retrieval / report production problems as directed.
7. Directs, trains and monitors the activities of subordinate staff and consulting contractors to maintain satisfactory performance of assigned / contracted functions and so as to comply with established personnel and consultant management procedures, rules and regulations.
8. Performs duties in compliance with departmental safety rules. Performs all duties in a manner conducive to the fair and equitable treatment of all employees.
9. Performs other duties as assigned.